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7-2012

# Embracing Analytics for a Better Competitive Edge

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### Citation

KAM, Tin Seong. Embracing Analytics for a Better Competitive Edge. (2012). *Business Times*. 10-10. Research Collection School Of Information Systems.

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# Embracing analytics for a better competitive edge

**Q: Should SMEs aim to be analytics enterprises rather than making decisions by hunches and copying what their competitors are doing? What are the key success factors for SMEs which harness business analytics to be more competitive?**

**A:** Who are your most valuable customers? Who will remain a loyal customer and who won't? Which marketing campaigns are the most effective with which customer segments? What do you need to know before you launch new acquisition activities? How can customer value be maximised? These and many other related questions are the challenges faced by SMEs today. Over the last five years, many large organisations and multinational corporations have turned to business analytics to provide answers for these questions.

Business analytics is a business-driven and data-centric decision support tool focusing on discovering actionable understanding of business issues and pains. It makes extensive use of statistical techniques, data visualisation, data mining and predictive modelling to drive business decision and strategy-making. It is a way for companies to compete in an increasingly uncertain and rapidly evolving business environment.

**Hard to come by:** A business analyst is someone who has a deep appreciation of the business problems and sound domain knowledge such as marketing, sales and business development, coupled with IT and data analytics skills

Despite its rising popularity in the large and multinational corporations, business analytics is still relatively new within the SME community. In general, it has been perceived as an expensive version of statistical package. This misconception is mainly due to a lack of proper understanding of how business analytics will transform the way they do business. We believe that there are at least three critical success factors that need to be acknowledged before SMEs jump on the business analytics bandwagon.

## Critical success factor 1: The orgware

Analytics enterprise requires strong leadership and support from the management. Unfortunately, most top executives of SMEs have to wear many hats. Even though they are the most senior persons in the organisation, it is not unusual for them to be involved in the day-to-day operations of the business. Some of them even need to double as the delivery boy of the company. For these CEOs, making business decisions based on gut feeling and past experiences are faster and far more effective than depending on information derived from analytics.



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## Engage SMU profs

Furthermore, most CEOs of SMEs have yet to gain full appreciation or be convinced about the returns on investment in business analytics. To prepare themselves to provide the analytics leadership to their organisations, these CEOs should acquire the basic awareness of business analytics. This understanding should not be confined to the technology trends but more importantly, the best practices of using business analytics to gain a competitive advantage. One useful avenue is through the monthly Master of IT in Business (Service Sector Analytics) [MITB (SSA)] seminar series ([http://www.sis.smu.edu.sg/programme/mitb/industry\\_seminars\\_ssa.asp](http://www.sis.smu.edu.sg/programme/mitb/industry_seminars_ssa.asp)) organised by the School of Information Systems, Singapore Management University (SMU). Since its inception in December 2009, 18 seminars have been delivered by practitioners from a wide industry domain, covering diverse business analytics topics, such as big data analytics and the Cloud; 10 Things I Wish Someone Had Told Me About Data Analysis; Turning Online Chatter Into Business Insights and Strengthening Customer Relationships through Loyalty Programmes, just to name a few.

## Critical success factor 2: Data

Data are the lifeline of any analytics just like fuel to cars. Without data, there can be no analysis – it is as simple as that.

In general, large and multinational corporations tend to be overwhelmed with massive databases captured in their customer relationship management (CRM), data warehouses and corporate accounting systems. To gain actionable insight from these databases, their greatest challenge is on how to integrate multiple sources into analytics data marts.

By and large, SMEs do not lack aggregated data related to their business. This is because they are required for auditing purposes. However, in order to gain a better understanding of the purchasing patterns of the customers and inventory stock of the products, SMEs need to maintain highly disaggregated data such as (i) point-of-sale transaction records and (ii) individual and daily stock inventories. These are not readily available in most SMEs. Even if they are available, such records are likely to be in written or printed form. This makes it difficult for any subsequent analytical work to be carried out. Furthermore, these paper records tend to be highly inconsistent, possibly with errors and/or missing data. Therefore, before embarking into any analytics, the top priority for SMEs is to convert critical business data into databases.

## Critical success factor 3: The manware

The third success factor for SMEs to compete on business analytics is the business analyst. There is a general misconception among the business community that a business analyst should be either an IT geek or one with a PhD in statistics. It is no doubt that these are important skills and knowledge that a data analyst should possess. However, what the businesses really need is someone who has a deep appreciation of the business problems and sound domain knowledge such as marketing, sales and business development, coupled with IT and data analytics skills. People possessing these skills are not easy to come by.

This is one of the areas where supply and demand have yet to meet. Experienced business analysts and consultants are still out of the reach for many SMEs. Instead of competing with the large and multinational corporations, it may be wiser for SMEs to adopt an inward-looking approach to nurture their in-house staff by equipping them with appropriate business analytics skills. SMEs can tap the skills upgrading programmes administered by the Workforce Development Agency (WDA) by sending their staff to a business analytics-related short course offered by NTUC NextU and taught by the faculty of SMU School of Information Systems. For those who are interested in a full-time master's programme, they are encouraged to consider the increasingly-popular MITB (SSA) programme offered by SMU. This Master's programme is specially designed for mid-career working professionals who are keen to acquire business analytics skills.

By offering opportunities to their staff to learn business analytics skills and knowledge, not only can SMEs meet their needs for business analytics manpower, it also allows them to build an analytical culture in their companies to gain a competitive edge in this dynamic and uncertain business world.

Get ready to take your company forward by embracing business analytics!

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